

Notice of Allowability

Application No.

10/790,115

Examiner

/Erma Cameron/

Applicant(s)

WEBER, JAN

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 5 and 27-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____

Art Unit: 1762

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Bennett on May 22, 2007.

The application has been amended as follows:

2. The following amendments have been made to the specification, as suggested by the applicant:

[1043] Once the first coating 151 has been disposed on object 150, the orientation of the beam profile can be shifted or translated to a second orientation such that the peaks of the second orientation correspond to the valleys of the first orientation. Droplets associated with the second coating can be dispensed from dispenser 140. The direction of these droplets can be modified by beam output from the beam steering system 120 when the beam profile is in the second orientation, thereby disposing the second coating 152 on the object 150. This results in coating the surface of object 150 with a periodically variation between two coatings 151 and 152 in interleaving zones.

[1048] FIG. 9 shows an example of the coating distribution of droplets 210 and 220 disposed on the surface of object 250. In particular, distribution portion 219 is associated with droplets 210 and distribution portion 229 is associated with droplets 220. The comb-like structure of distribution portion 219 and the substantially uniform structure of distribution portion 229 are based on the different focus points for droplets 210 and 220, respectively. The comb-like structure forms interleaving zones. In other words, droplets 210 are disposed on the surface of object 250 in the substantially uniform structure of distribution portion 219 due to the diffuse manner in which droplets 210 impinge upon the surface of object 250 after being focused at locations away from object 250. Similarly, droplets 220 are disposed on the surface of object 250 in a comb-like manner due to their focus points being substantially at the surface of object 250.

[1052] As shown in FIG. 11, distribution portion 319 is associated with droplets 310 and distribution portion 329 is associated with droplets 320. Consequently, the peaks of the comb-like distribution pattern of droplets 310 are offset from the peaks of the comb-like distribution pattern of droplets 320 in interleaving zones. In other words, the peaks of the comb-like distribution pattern of droplets 310 are disposed on the surface of object 350 in substantial correspondence to the valleys of the comb-like distribution pattern of droplets 320 on the surface of object 350, and vice versa.

3. Claim 34 has been canceled and the following amendments have been made to claims 5, 27, 29 and 33, as suggested by the applicant and agreed to by the examiner:

Claim 5 (Currently Amended) A method, comprising:

dispensing a first plurality of droplets, the first plurality of droplets having a flight path;
modifying a direction of the first plurality of droplets along their flight path using a first optical field;

disposing the first plurality of droplets on a medical device after modifying the direction of the first plurality of droplets;

dispensing a second plurality of droplets, the second plurality of droplets having a flight path, a droplet from the second plurality of droplets having a size different from a size of a droplet from the first plurality of droplets,

modifying the direction of the second plurality of droplets along their flight path using a second optical field; and

disposing the second plurality of droplets on the medical device after modifying the direction of the second plurality of droplets such that the first plurality of droplets and the second plurality of droplets form interleaving zones in a plurality of coatings on the medical device.

Claim 27 (Currently Amended) A method, comprising:

dispensing a droplet, the droplet having a flight path;

modifying at least one of a direction, a velocity or an acceleration of droplet along its flight path using an optical field, the modifying being based on a characteristic indicating that the droplet is unacceptable for disposing on a surface of a medical device;

disposing, after the modifying, the droplet on a waste surface different from and proximate to the surface of the medical device.

Claim 29 (Currently Amended) The method of claim 27, wherein the modifying includes modifying the velocity of the droplet to substantially zero temporarily at a position along a the flight path.

Claim 33 (Currently Amended) The method of claim 27, wherein the droplet is a first droplet, the method further comprising:

dispensing a second droplet at a time period at least a portion of which overlaps with a time period in which the first droplet is dispensed, the second droplet having a flight path;

modifying at least one of a direction, a velocity, or an acceleration of the second droplet along its flight path using the optical field based on a characteristic of the second droplet indicating that the droplet is unacceptable for disposing on the surface of the medical device, the characteristic of the second droplet including at least one of a size, a weight, the velocity, the direction, the acceleration, or a chemical composition of the second droplet; and

disposing the second droplet on the waste surface after the modifying of the second droplet.

4. The following is an examiner's statement of reasons for allowance:

The prior art does not disclose nor suggest the application of different size of droplets on a medical device using an optical field, as in claim 5, or the application of acceptable droplets on a medical device and the application of unacceptable droplets on a proximate surface to the medical device, as in claim 27, again using an optical field.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Erma Cameron/ whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Erma Cameron/
Primary Examiner
Art Unit 1762

May 24, 2007